

METHOD AND APPARATUS FOR TRANSMISSION OF UPSTREAM DATA IN ,
AN OPTICAL NETWORK

Abstract of the Disclosure

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10 In an optical network that communicates upstream data utilizing a time
division multiple access (TDMA) technique, end nodes transmit upstream data on a
first wavelength in accordance with a transmission sequence. The end nodes transmit
a timing signal on a second wavelength following the upstream data. The timing
15 signals are reflected by a wavelength selective reflective element to each of the end
nodes. The end nodes track the timing signals to determine when to transmit upstream
data in accordance with the transmission sequence. The optical network includes an
outside plant node coupled to the system head end with a distribution fiber. The
outside plant node is coupled to the end nodes with drop fibers. The outside plant
15 node includes a splitter/combiner and the wavelength selective reflective element.
The wavelength selective reflective element reflects the timing signals on the second
wavelength and passes upstream and downstream data on other wavelengths.

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